Mt. Wilson believes its classical music format is now and would be in the future superior to that which might be offered by the group owners. Pragmatically, however, even if listeners prefer the KMZT-FM classical music format, the "real world" is that advertisers most often will "buy" the best rate – and the best rate will be the group owner with the most stations in the market.[1]

While small radio broadcasters will also have the ability to multicast, the sheer magnitude of multiple broadcast stations (resulting from multicasting) operated by a single commercial licensee entity already holding the maximum number of stations permitted by the multiple ownership rules will economically overwhelm the small radio broadcasters. The reality contemplates more than competition; the reality includes economic considerations and less diversity of ownership. While a single group owner may offer more program diversity, such fact is more than offset by the inevitable result of

[1] Mt. Wilson has already experienced the adverse impact confronting the small radio broadcaster. In 2004, by packaging its eight stations (none of which were classical music stations), Clear Channel replaced Mt. Wilson as the opening night official host for the Los Angeles Opera. The prospective benefits flowing to Mt. Wilson included hosting the annual Opening Night Sponsor/advertiser party – the significance of which is that such position provided an opportunity for Mt. Wilson to become involved with a broader segment of the advertising community, a positive economic factor. The "bottom line," however, was that Clear Channel could promote the Los Angeles Opera on eight stations whereas Mt. Wilson could promote the Los Angeles Opera on two stations. A second situation involved Mt. Wilson's AM station, which aired an "Adult Standards" format. Following a two-year hiatus, Clear Channel initiated a new "Adult Standards" format – the effect of which forced Mt. Wilson to abandon its format. More specifically, the largest "Adult Standard" advertiser/venue in Los Angeles was induced with special package rates to enter into a long-term contract wherein the "Adult Standard" advertiser/venue would allocate 100% of its radio advertising budget to Clear Channel. The "bottom line" in this instance was the combination of lower rates and the ability to package multiple stations. The existing difficult situation will be exacerbated absent applying the multiple ownership rules to multicasting.

less diversity of ownership – absent the applicability of the multiple ownership rules to multicasting.

Recently, the Commission has been apprised of a study which purports to link indecency complaints to corporate consolidation within the broadcast industry, see Appendix C.[2] Failure to apply the multiple ownership rules to multicasting will facilitate consolidation. Whether there is in fact a link requires further study, a viewpoint articulated by Commissioner Copps. Given the high degree of probability that the absence of applying the multiple ownership rules to multicasting will lead to more consolidation and, therefore, less diversity of ownership (and possibly more indecent programming), the public interest will best be served by insuring that multicasting will be subject to the multiple ownership rules. Indeed, the rhetorical question is why would the Commission not apply the multiple ownership rules in order to prevent still further consolidation and to protect diversity of ownership? To hold otherwise will benefit only private interests (the Board Rooms), not the listening audience – not the public interest.[3]

Multicasting will result in the proliferation of stations – Mt. Wilson does not oppose multicasting. It seeks only reasonable ownership restraints in order to preserve

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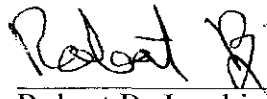
[2] "Ownership Concentration and Indecency in Broadcasting. Is there a Link?", authored by Jonathan Rintels of the Center for Creative Voices in the Media and Fordham University Professor Philip M. Napoli.

[3] The nature of television programming is not oriented to music formats – as is the case of radio. Television multicasting does not pose an analogous adverse economic impact to other television licensees primarily because the television multiple ownership rules are intended to preserve diversity of ownership and, consequently, are considerably more strict.

diversity of ownership. Such restraint lies in applying the radio multiple ownership rules to multicasting.

Respectfully submitted



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*Counsel for Mt. Wilson FM Broadcasters, Inc.*

Date: October 19, 2005

# APPENDIX A

IBOC DAB

02.16.05

## NPR Moves Multi-Channel Forward

*Network Seeks Manufacturers to Make Radios; It Will Provide Program Streams for Members*

**by Leslie Stimson**

For some station executives, going digital only makes sense if there's an opportunity to create new programming to go along with the promise of better audio.

That's why this June, NPR plans to offer several program streams to member stations that plan to split their digital signals into multiple channels. By fall, the network hopes, receivers will be available to consumers to decode multi-channel digital radio.

Radio World has reported on the efforts of NPR and its partners Kenwood and Harris to test the concept of multi-channel digital. Now NPR is prepared to bring its Tomorrow Radio project to reality with plans for handling both the programming and hardware needs of member stations.

Anticipating a group purchase of receivers, the network is asking manufacturers to make HD Radios that can receive multiple digital signals. It is offering special, free, programming available to member stations to fill the channels with content.

The target date is June for the first of a planned four program streams consisting of classical, jazz, news/talk and another music channel. Format streams developed for the supplemental channels are seen as the ones most likely to grow and be supported by the network for a long time, sources close to NPR said.

Many in radio long have argued that digital only makes sense if the industry can deliver improved content as part of the transition, giving consumers sufficient reason to buy HD Radios – just as subscribers to satellite radio do so for the new content.

Mike Bergman, Kenwood vice president of new digital technologies, said Tomorrow Radio "is the single most important feature to promote HD Radio because it gives the consumer another compelling reason to buy" aside from great audio quality with digital radio.

### Possible group buy

NPR released a Request for Information to licensed HD Radio receiver manufacturers at the recent CES convention in Las Vegas. Other HD Radio vendors were welcome to respond. A future group purchase could include 10,000 to 50,000 radios, said Mike Starling, NPR vice president of engineering and operations.

"It depends on what the manufacturers tell us about the price points, whether we can come to terms and actually execute a group buy. That's why it's an RFI as opposed to an RFP," or a Request for Proposal, he said.

NPR hopes to be able to craft a deal by the spring NAB show so it can place an order and have the units shipped in time for station fall fundraisers.

The radios would be used to seed the marketplace, probably as pledge premiums, and by station employees for station monitoring.

The RFI response deadline was Jan. 31. The network has brokered such group equipment buys in the past, he said.

Eventually, all stations would pay NPR for their radios, said John Kean, senior technologist at NPR.

While the multi-channel concept has garnered the most attention from the non-commercial world, commercial broadcasters are warming up to the potential of the supplemental digital channels. Several told Radio World they are looking at the concept.

At Ibiquity's press conference in Las Vegas, Entercom President/CEO David Field called the technology an "opportunity to create new radio stations to grow content."

Ibiquity Digital President/CEO Robert Struble said the extra channel capability of digital radio would "help these guys (representing different radio groups) light up a competitive battle" between each other and with satellite radio.

At the show, KCNV(FM) in Las Vegas became the 50th NPR member station to go HD Radio. It was featured in a supplemental audio demo at Ibiquity's booth.

Approximately 300 NPR member stations are in various stages of digital conversion, with funding for an additional 150 to 200 expected to be approved by the Corporation for Public Broadcasting this year, according to NPR executives.

**How low can you go?**

NPR hopes the FCC approves the multi-channel concept for HD Radio early this year.

In perceptual test results of Ibiquity's HDC codec at various bit rates, submitted to the commission in the fall, NPR said, "The new testing indicates that 48 kbps is perceived by most listeners as providing equal sound quality to the maximum rate of 96 kbps."

Optimum bit rate allocation varies according to format, so NPR hoped the agency would allow stations to determine their own bit rate allocation for multicasting.

The codec tests showed it was possible to achieve two near-CD quality channels, plus up to four additional voice-grade channels with minimal, if any, interference to existing analog radios, Starling said. Twelve codecs from nine vendors were tested.

In the initial tests last year, the main channel was 64 kbps and the supplemental channel was 32 kbps.

NPR referenced its "Report on Perceptual Tests of Low- and Very Low-Bit Rate Codecs," filed with the FCC - the results of testing that the network commissioned, along with the International Association of Audio Information Services and Ibiquity.

Participants wanted to see if the extended hybrid digital spectrum was suitable for radio reading service transmission. The testing measured subjective qualitative differences among the latest digital codecs that may be used for radio reading services.

The network stated, "Improved quality was achieved with readily available codecs compared to existing analog SCA technologies, both within a single extended hybrid partition and within two of the four available partitions. Based on these results, we believe radio reading services, and other specialized audience services, will be a practical service option via extended hybrid mode."

**Reading services viable**

"This would allow listeners who rely on these services to purchase commonly available mass-market receivers, ultimately freeing these services from reliance on specially manufactured SCA receivers, which historically have offered inferior quality service," it stated.

(For hybrid analog/digital broadcasting, the Ibiquity HD Radio system adds a number of OFDM carriers above and below the host analog signal. Groups of carriers are formed into frequency partitions about 6904 Hz each in width. Ten of the outer partitions form the main group, providing a 96 kbps digital stream for the primary audio channel [and optionally, supplemental audio]. Additional sets of partitions are allocated symmetrically within the pair of main partitions, called the extended hybrid mode. These interior partitions provide ancillary data streams at about 12.5 kbps each. Radio World will report further on these tests in a subsequent issue.)

Based on results in the tests, NPR asked the FCC for expedited authorization for public stations to begin digital multicasting to foster the development of diverse, new public programming services; eliminate the costs of retroactive upgrades; and afford stations the opportunity to streamline operations.

The network hopes the commission approves the multicasting initiative in the first half of the year.

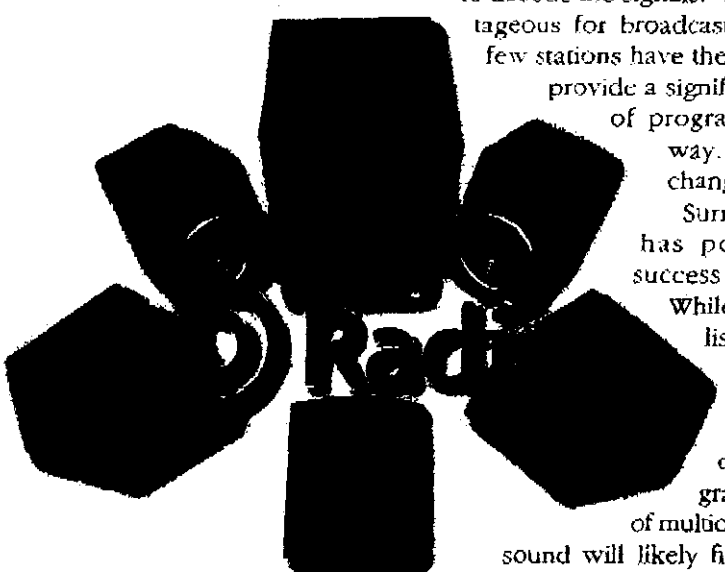
# Insight to IBOC

## Practicalities of surround

*by Chriss Scherer, editor*

Now that the FCC is soliciting comments on NRSC-5, there has been renewed interest in the IBOC rollout. While the standard defines the basic operation of the transmission system, the enhanced functions of data, surround sound and multicast operation have yet to be fully defined. Several stations now transmit multicast programming, and multicast receivers are becoming available to consumers.

Surround sound for IBOC is not yet mature. While some of the surround technologies are established, there's no easy way for consumers to decode the signals. This is advantageous for broadcasters, because few stations have the capability to provide a significant amount of programming anyway. This could change soon.



Surround sound has potential for success with IBOC. While most radio listening is casual, which lends itself to the additional program offerings of multicast, surround sound will likely find its initial niche as a special feature medium. Concerts and special programs are an obvious possibility. Some classical stations may consider surround for more regular use.

### Searching for standards

There are currently five surround systems that have been demonstrated for use with HD Radio, so there is no single standard. Three of them, SRS Circle Surround, Neural Audio's surround system and Dolby Pro Logic II have been approved by Ibiquity as compatible with HD Radio. The other two systems—from Fraunhofer and Coding Technologies—operate differently and have not yet received the Ibiquity stamp, although they have been shown to work with the HD Radio system.

As it is, there are few receivers available to decode a surround signal, so there is not much incentive for stations to begin regular broadcasts. SRS Circle Surround or Dolby Pro Logic II can be found in several models of home media systems, and Kenwood announced that it will release a mobile receiver for many formats, including HD Radio and Circle Surround.

### Case Study: Installing multicast

*By Don Danko, CBRE CBNT*

Broadcasters have sought the killer application for FM HD Radio, and at first glance it looked like program-service data (PSD) was going to be it. More recently, the attention has turned to supplemental audio.

Three years ago, National Public Radio spearheaded a project called Tomorrow Radio. This technology, now referred to as multicast, provides a second channel of audio that is transmitted with a station's main program stream. The overall HD Radio data stream is set at 96kb/s. Streaming a second signal involves lowering the bit rate on the main channel and giving those saved bits to the second channel.

WGUC has tested its system with the main channel at 64kb/s and the second channel at 32kb/s. We also tested at 48kb/s for both channels. The main concern for any engineer is that when bit rates are lowered, more artifacts will be evident along with other audio quality issues. As an engineer of a classical music station I was concerned about our audio purist listeners. Lowering our main channel bit rate was a big concern.

After testing the main channel at 96, 64 and 48kb/s most of my fears and concerns vanished. The classical music proved to be more resilient than expected. It's

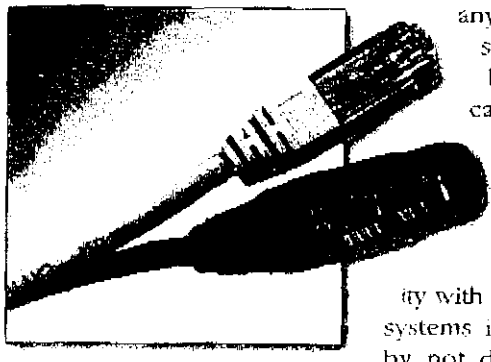
*continued on page 3*

*A special supplement to* Radio

# Surround

The five systems can be divided into two distinct types. Circle Surround, Pro Logic and the Neural system all encode a surround source into a stereo audio path, while the Fraunhofer and Coding Technologies systems create a stereo channel and an associated data channel that is used to create the surround image.

Because the first three encode the surround information into a stereo signal, it is easy to understand how these systems can work with HD Radio. In reality, they could work with any stereo audio path. As long as the appropriate decoder is installed in the receiver, any or all of these systems could be used. Because the surround audio is encoded into a stereo path, compatibility with non-surround systems is maintained by not decoding the imbedded signals. The SRS and Dolby systems are matrix processes, and the Neural system is a watermarked process.



The surround sound formats have different needs for transmission.

The last two are different because they split the data path of the FM signal into two portions. Instead of using 96kb/s for the entire stereo audio path, Fraunhofer and Coding Technologies use a large portion of the path—about 80kb/s or more—for a stereo signal, and up to 16kb/s for the surround data. The surround data is created in the encoding process by comparing the surround mix to the stereo mix. The stereo portion is left intact for systems without a surround decoder. For simplicity, I'll refer to these as discrete systems.

The HD Radio signal is a data path, and with the development of multicast, this path can be allocated with different bit-rates for different uses. Again, more than one surround system could be implemented and the receiver could detect which process was used for the encoding.

Fraunhofer's system is touted as being compatible with MP3, AAC, AAC Plus and other codecs. Coding Technolgies uses the HDC coder, which it built for Ibiquity.

## Surround around the station

Before a surround signal can be transmitted, stations must be able to work with surround content. There are several points along the signal where surround sound can be implemented, but we'll start at the beginning of the audio air chain and move forward.

Creating surround content will likely be the most challenging for any station. While music may be

## Case Study: Installing multicast

*continued from page 1*

important to note that those tests happened almost five months ago, before any supplemental audio equipment was available. I did this so that when Harris shipped the supplemental audio equipment—a Flexstar—I could concentrate on the second channel. The one unresolved question is listener fatigue at lower bit rates. I feel confident with the quality of the 64, 48 and 32kb/s audio stream for a variety of music formats.

The Flexstar is simply a streaming audio encoder. We push the stream to our Dexstar exciter via a LAN connection through an E1 fiber optic Intraplex link. The Dexstar accepts the stream, merges it to the main HD Radio stream, and then sends it as one big data stream. The signal coverage is identical to the main HD Radio program signal.

### Room for improvement

There are three important details to be identified. Unlike the main channel audio, when the second channel drops out because of a lack of signal strength there is no analog audio to switch to. This is simply a limitation of the system that can't be improved on. The second issue is the lack of being able to switch bit rates or turn the second channel on and off at will without restarting the exciter. This issue is expected to be fixed in a future Ibiquity software release. The last issue deals with surround sound broadcasting. WGUC has been testing multiple surround technologies and has been involved with the NRSC subcommittee dealing with surround. When broadcasting surround it will be important to maintain the highest bit rate possible. Depending on the system used it will be necessary to use either 64kb/s or 96kb/s to broadcast surround on the HD Radio signal. This is where switching bit rates without restarting the exciter becomes an important issue.

Available multicast receivers are still limited. Kenwood, JVC and Panasonic have the only aftermarket automobile receivers available. Boston Acoustics, Polk Audio and Radiosophy are scheduled to ship tabletop receivers by fall. All of these receivers are now forward compatible and can decode second channel audio. Kenwood has offered to upgrade its older non-compatible HR-100 HD Radio receivers for a nominal fee.

On the Kenwood system, when users tune to a station that has a second channel the display will indicate the second channel by displaying a call sign then HD1 for the main signal and with a push of a button it will say HD2. When the second channel signal is lost the receiver will mute and wait for the signal to return or for the user to change the channel. Using the HD Radio receiver in my car I soon realized that a Clear Channel station in town was on

*continued on page 6*

# Surround

## Decisions, decisions

So if your station decides to carry surround-sound audio, which system is the one to choose? This is a decision that the station will have to make on its own, but that decision can be tempered by weighing the various aspects of the systems.

The matrix and watermark systems work with existing stereo facilities. Audio encoded in this way can be mixed and edited with little or no effect on the encoding. However, surround aficionados may notice that the surround audio may not be exactly like the original. In addition, there is concern that the encoding process may introduce unwanted artifacts, such as excessive stereo difference information.

Meanwhile, the discrete systems maintain the stereo quality and accurately replicate the surround field. The drawback is that existing stereo facilities are probably not yet able to route and mix the encoded audio. The matrix/watermark systems have the advantage that they are easier to implement, and can be done so gradually.

The ability to transmit surround-sound programming adds a sparkle to IBOC's consumer acceptance, and it provides another element to keep terrestrial radio in step with other forms of digital entertainment. While the specific format used widely has yet to be determined, stations should plan now for a possible surround-sound future.

## Case Study: Installing multicast

*continued from page 3*

the air with second channel audio. After further investigation I found that a handful of public radio stations nationwide along with some Clear Channel stations (and I'm sure other broadcasters) are implementing second channel audio. Now that encoders are shipping (at a price of around $5,500) I expect it to spread fast.

I believe that multicast audio may be the killer application needed to give HD Radio a boost and propel the technology. The next generation may provide even more channels. Currently, there are tests being conducted for three channels of audio each at 32kb/s.

PSD will be an important feature of HD Radio, but the availability of a viable second channel of programming is something that will have every station program director and sales manager salivating, and it will only provide the radio listener with more options and a better experience. It is precisely this kind of experience terrestrial broadcasting needs to secure listener loyalty and prevent them from signing up with satellite radio or listening to that six-disc CD changer mounted in their trunks.

*Danko is VP of engineering and operations for WGUC-FM, Cincinnati.*



# APPENDIX B

IBOC DAB

06.22.05

## Tuning With Multicasting Ahead

*Datacasts Will Change How You Interact With Radio*

**by Leslie Stimson**

The advent of multicasting and other datacasting possibilities doesn't affect only broadcasters. Receiver manufacturers as well as their component suppliers are grappling with how to design new radios and make it easy for consumers to access the promised new features of HD Radio and the RDS features of analog broadcasting.

These manufacturers want to make sure the consumer's first experience is a good one.

Some of the questions being bandied about: How will consumers tune to a supplemental station? How will the "seek" or "scan" functions change? How would stations let listeners know there are supplemental channels available, and how would those station designations appear on the faceplate of the radio?

Depending where their design/manufacturing cycles stand, receiver companies are in various stages of discussing or finalizing these and other design considerations as they prepare to go into production for radios that would ship to retailers this summer and fall.

Experts say features such as a "buy" button won't be in the market for another two years or so, for reasons less to do with design and more with business and regulatory issues.

### FCC approval?

For now, manufacturers that are bringing out their first HD Radios are wrestling with the multicasting feature. Manufacturers contacted by Radio World hope the FCC permanently approves the option that a broadcaster may split its signal into multiple streams. Stations doing so already have sought experimental authorization to multicast.

To include that feature in HD Radios, chipmakers planned for features such as multicasting about a year ago.

"We've made it a point to let everyone know it (multicasting ability) is a standard part of the TI350 chip," said John Gardner, product manager for digital radio for Texas Instruments. The previous version, the 300, processed HD Radio only. The new DSP chip processes both analog and digital, he said.

"One processor is less expensive. On a lot of radios coming out there's no price difference" to add multicasting, he said.

Other than the display and the Select key, which is already embedded in the radio, there's really nothing to add, Gardner said.

Some HD Radios already in the market can be upgraded to include multicasting with a

software change, he said. That's the case with the Kenwood HDR100.

At first, several experts said, when tuning to a supplemental channel listeners will see an icon or text display and click on it to tune to the SAP.

"We're trying to keep it as close to how you interact with the radio today," said John Crisco, product line manager for Polk Audio, which this fall plans to ship the I-Sonic entertainment system, which includes HD Radio and associated multicasting ability, as well as DVD and CD players. It's also XM-ready.

HD Radio receivers lock onto the analog signal first, while buffering the digital, much as satellite digital radios do (although in satellite radio there is no analog to hear first, so the user waits for a few seconds for tuner acquisition).

Acquisition time for the digital signal was estimated to take between 4 to 7 seconds for HD Radio, depending on manufacturer.

For example, he said, "When you tune to 88.1, if they are HD, it will have an HD logo. It will blink as it starts to lock into digital and then come in solid once the signal is locked in." This would be true for the main or supplemental channels, he said.

To tune to a SAP, the listener would hit "tune up" or turn the dial to the right. The next channels would be 88.1-1, 88.1-2 and so on.

A signal currently may be split four ways, he said, including the main channel and three supplemental channels.

**Format-related issues**

Receiver manufacturers also are taking into account how stations might program the extra channels, be they formats related to the main digital channel or unrelated.

Some broadcasters, for example, might tie their channels together, such as a package of new country, classic country and bluegrass. Or the main channel might be supplemented by the multicast content, such as a package of classic rock on the main channel, artist interviews or other related material on the first supplemental channel, and traffic and weather on the second.

A different situation arises when the station splits the channels into unrelated formats, such as classic rock, news/talk and local ethnic programming.

Manufacturers are keeping multicast station designations simple in first-generation production as they wait to see how stations brand their additional channels on the air. Having a jock say "WCBS(FM) HD-1" is quite a mouthful, for example.

Many stations are waiting to promote their digital conversions until more digital receivers are available; in interviews, manufacturers said they expected to ship product to stores from August to October.

"Kenwood chose to make each multicast channel a distinct 'station,' so that tuning is intuitive," said Mike Bergman, vice president of new digital technologies at Kenwood USA. "Dial up the dial, and you hit every main and supplemental channel. Presets on supplemental channels work as they do now."

With the Kenwood design, the user can set a preset on HD-1, another on HD-2 and flip back and forth. When the user goes to either, there will be a short delay while digital is acquired. In the case of HD-1, the user would hear the analog first, then digital. In the

case of HD-2, the user sees the word "LINKING" or another message for the first few seconds, before the tuner acquires the digital audio, Bergman said.

"Going from HD-1 to HD-2, or back, after you first acquire the station's HD Radio signal, will be very quick," he said.

Boston Acoustics' approach is to use a knob for tuning and to display the frequency digitally, with no scan function.

On the Recepter HD unit, when someone tunes to a station, say 88.5, the listener would see an HD indicator while the receiver acquires the analog signal; some 7 seconds later, it indicates that the digital signal has been acquired.

**Keeping it simple**

The radio lines up the channels in order; if there are multicast channels, "an indicator lines them up in a row, such as, 88.5-1, 88 5-2," said Stephen Shenefield, senior director of product development, Boston Acoustics.

"As you go up the dial and back, the radio will remember what's going on, puts it in a linear sequence that you're accessing with a knob," in order to keep the process similar to traditional tuning, he said.

Delphi has developed an OEM automotive tuner module for HD Radio on which it plans to begin production in two months. "That tuner module was designed to interface with Ibiquity's system," said Dr. Robert Schumacher, business line executive for the Delphi division of Delco Electronics Systems, who added that all new Delphi radios are HD Radio-ready.

Delphi's vehicle customers are interested in the technology, he said, and once vehicle manufacturers commit to putting HD Radio in vehicles, the company could get product to market quickly. "They're interested and asking a lot of questions."

Jeff Marrah, manager of receiver technology for Delphi and co-chair of a National Radio Systems Committee task group on identifying supplemental audio channels, said the group is looking at two approaches.

One is a so-called "layered" approach, in which "you're on a specific frequency and there's a layer of streams behind that frequency, such as HD-1, HD-2. That's what's out there today for products that have supplemental audio."

Another proposal is to take the supplemental streams and lump them into a separate band. The group is looking at the pros and cons of each approach and will report its findings to the DAB Subcommittee, Marrah said.

And what of other potential datacasting services for HD Radio?

Some stations could use a supplemental channel as a subscription service for on-demand, real-time traffic and weather. HD Radio can provide a bigger "pipe" into the car than RDS, said Schumacher, as stations re-purpose the traffic information they have and marry it with a navigation system and HD Radio receiver.

The so-called "buy" button, often touted as a possibility among IBOC proponents, is likely a year or two away, experts agree.

While the separate elements exist to make the technology feasible, such as a cell, satellite or Internet-linked back channel that communicates information from the station

back to the customer, a business models needs to be in place to support the additional necessary infrastructure.

Digital rights management also would come into play with this model, experts said, so that buyers would not be able to redistribute digital music they purchased.

# Reader Feedback



## Notes on NRSC-5 and IBOC

*...d for comments on NRSC-...ders to share some of their ...s. The response was over-...e the comments received by the F... are mixed feelings about the technology and the standard.*

I filed a brief comment to the FCC saying that the extended hybrid FM option should allow use of the S2 sidebands (69–101kHz) if the station would give up use of its analog SCAs. I estimate that this would extend the data budget in the hybrid mode by about 48kb/s to an option of 192kb/s. If interference with the main analog FM signal is a concern then a guard band between the analog and digital carriers could be established by slightly reducing analog modulation. This gives broadcasters the tradeoff similar to what happens with analog SCAs: a slight reduction in loudness for more service options.

Am I right to think that many broadcasters would take the trade, especially if a successful business model can be established for use of this option? As a public broadcaster it might mean, for example, that we could offer the enticement of special services (two or three multicast channels instead of just one) offered by subscription on this extended bandwidth in return for a premium level of pledge. Many other options are possible (such as more extensive audio on demand) which do not fit into the 144kb/s budget of the extended hybrid mode as it is now proposed but would be possible at 192kb/s. Those options would not have to be put off into a distant all-digital-mode future if digital bandwidth was increased in the extended hybrid mode. Let's call this option super-extended mode. A station would then have options of 96, 144, 192 or 288kb/s (all digital) and could move in more appropriate and achievable stages toward the all-digital mode. In fact, I think the rules should give us as much flexibility as possible in choosing between analog and digital bandwidth. If a station was willing to downgrade its analog signal even more, let us say go to a 12kHz mono and reduce its analog modulation 6dB to get another 48kb/s of digital bandwidth, then the rules should be flexible enough to accommodate that possibility too. I would like to see a graduated transition where as the digital bandwidth becomes more used and generates more services and revenues, the analog signal gracefully degrades and finally disappears. What's wrong with that vision?

*Tom Ammons*
*broadcast technician*
*WQED-FM*
*Pittsburgh*

This is a technology that will financially ruin small town stations such as mine. We are unable to pay the $5,000 licensing per station now, much less the higher fees later. Then we are faced with the upgrade in equipment to broadcast IBOC. Again the financials do not work.

Overall, we estimate that if we licensed today that the cost would be in the range of $125,000. In a market that barely breaks even, how could we possibly handle this financially?

I posed this question to the IBOC people at NAB. The ultimate answer was, "we do not expect the small market to make this move." What then do we tell listeners who have ordered cars with IBOC radio and want to listen to IBOC? The simple answer is, "we lose!" No more listener.

Then there is the engineering and maintenance issue. How do we perform these functions when there are no qualified engineers available?

These are legitimate concerns for small operators. The entire IBOC thing appears to be driven by the large multi-station groups.

*Tommie Dodd*
*president/GM*
*KQIK-AM/FM*
*Lakeview, OR*

If you go back in broadcast history to the days of yesteryear, TV and FM stereo were technologies that were not proprietary. I believe the inventor of TV wanted to patent the technology but never before IBOC has that been allowed to happen.

So here comes Ibiquity with IBOC. According to the trades if you signed on last year it was $5,000 but if you wait a couple of years it will be $25,000. Then they said you would have to pay a license fee just like your ASCAP and BMI at the prevailing rate to "reup" or whatever you want to call it. The trades said Ibiquity gave Clear Channel unnamed incentives and the head engineer at Clear Channel is on the NRSC board. I don't know all the details

**comments?**
*radio@primediabusiness.com*

# APPENDIX C

# Radio indecency tied to consolidation

## Study finds racier programs replacing local fare after buyouts

By Chris Baker
THE WASHINGTON TIMES

The sharp increase in radio programs that the government deems indecent is linked to sweeping corporate consolidation within the industry, says a study sponsored by two activist groups.

As big media companies such as Clear Channel Communications Inc. and Infinity Broadcasting Corp. have gobbled up more radio stations in the past decade, they increasingly have replaced local programming with racier shows that appeal to younger listeners whom advertisers crave, the report concluded.

"Edgy programming appeals to a large portion of the radio audience. That audience is highly sought-after by advertisers, who will pay a premium to reach it," said Jonathan Rintels, president and executive director of the Center for Creative Voices in Media, a group that represents writers, directors and performers who oppose concentration in the media. The center was one of the sponsors of the study.

The report said 96 percent of the indecency fines the Federal Communications Commission proposed between 2000 and 2004 were levied against four of the station's largest radio companies: Clear Channel, Infinity, Entercom Communications Corp. and Emmis Communications Corp.

There weren't enough fines against television shows to generate "meaningful" data, Mr. Rintels said.

Free Press, a nonprofit group that opposes media consolidation, and Fordham University sponsored the study, which was released yesterday.

It cites WCKT-FM, a country music station in Port Charlotte, Fla., as an example of a broadcaster that has been fined by the FCC since the 1996 Telecommunications Act lifted the rules that restrict growth in media companies.

After the 1996 law was adopted, Clear Channel acquired WCKT and dropped its local morning show, replacing it with "Bubba the Love Sponge," an adult-oriented program produced by a Clear Channel station near Tampa.

Last year, the FCC fined WCKT and the other Florida stations that air "Bubba" $715,000 for segments that described, among other things, sex acts with cartoon characters.

FCC rules prohibit over-the-air radio and television stations from airing sexually explicit material between 6 a.m. and 10 p.m., when children are most likely to tune in.

"The data show this pattern repeatedly: Following the elimination of national ownership limits, a local station is sold to a larger station ownership group, which then eliminates the local content and replaces it with an edgy or raunchy show that it produces in another market, causing the newly owned station to be fined for indecency for the first time in its history," Mr. Rintels said.

The FCC voted 3-2 along party lines to further loosen media ownership rules in 2003. A federal court later rejected the new regulations, sending them back to the agency for a revision.

"One of the questions we needed to ask back then was whether there is a link between increasing media consolidation and the amount of indecency we have seen and heard over the airwaves in recent years. We really had no business voting in 2003 until we took a serious look at the matter," Michael J. Copps, one of the two Democrats on the five-member FCC panel, said in a statement that an aide read for reporters yesterday.

September, 2005

release of audiotapes in key cases.)

Fortunately, last week, Roberts didn't shut the door on reversing the ban on television cameras in the courtroom. The question came up as the judge explained [illegible] up and pass the bill.

We hope that, as a sign of a new era in the Supreme Court, Roberts—or whoever becomes Chief Justice—will allow the public in. The nation will be better for it.

# The Link Between Big Media and Indecency

**OPEN MIKE**

Editor: Radio indecency and station consolidation are linked, and increased indecency is a consequence of the deregulation of media ownership, according to a study conducted by the Center for Creative Voices in Media and the Donald McGannon Communication Research Center at Fordham University.

Policymakers who advocate raising fines exponentially for indecency violations and extending fines to on-air talent might better address the problem by taking a fresh look at the link between deregulation and its unintended consequence: increased indecency.

Contrary to the impression left by *B&C*'s editorial "Indecent Proposal" [9/12, page 48], this position is completely consistent with our endorsement of consumer education about the V-chip, on-screen ratings and cable channel-blocking technology rather than increased government regulation.

Using available data, we determined that, of all the indecency fines levied by the FCC in radio in the years 2000-03, a full 96% were imposed against four of the nation's largest radio-station ownership groups: Clear Channel, Viacom, Entercom and Emmis. Yet those companies owned only 12% of the total radio stations, with a 48% recent share of the national radio audience.

In contrast, the 88% of the nation's radio stations not owned by these four station groups, with a combined national audience share of 51%, were responsible for just 4% of FCC indecency violations.

The data also show a repeated pattern: Following the elimination of ownership limits in 1996, a local station would be sold to a large station-ownership group, which then eliminated local content and replaced it with an edgy/raunchy show that it produced in another market, causing the station to receive an FCC indecency fine for the first time in its history.

To settle their violations, three of the four station-ownership groups paid millions of dollars and entered into consent decrees that significantly increase restrictions and penalties for future violations. The inevitable result is the self-censorship of speech that is not indecent and is protected by the First Amendment.

The better way to address the problem of objectionable speech is not less speech but more speech from more voices. We invite all to read our report, at www.creativevoices.us, and judge for themselves.

Jonathan Rintels
Executive director
Center for Creative Voices in Media
Washington

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